

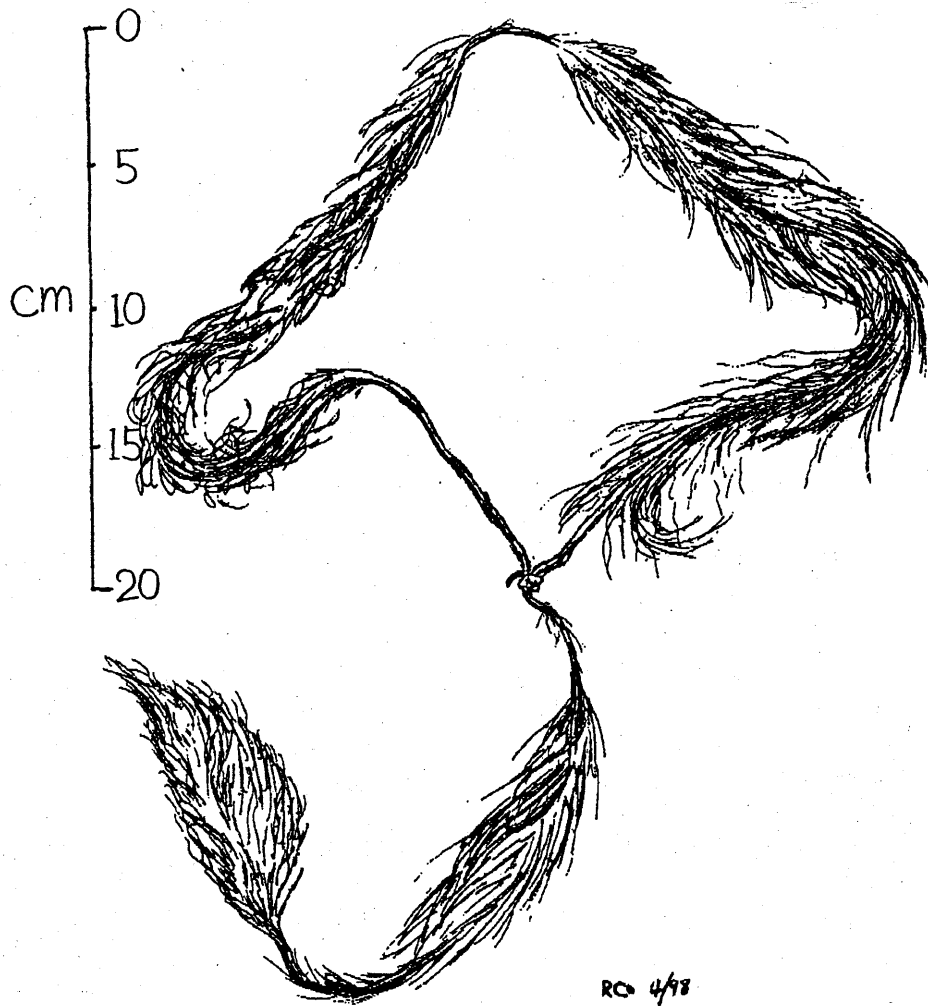
<NOTES>**Chimpanzee Wears a Knotted
Skin "Necklace"**

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The tying of knots by animals is usually associated with construction of shelters (3), most notably nest-building by the Ploceinae or weaver birds (2). Among primates, even in bed-making by Great Apes, we can find no previous record of knots; the closest is of rehabilitated orangutans (*Pongo pygmaeus*) trying unsuccessfully to knot rope to secure a hammock (4). Here we report a knot tied in a piece of skin of red colobus monkey (*Procolobus badius tephrosceles*) worn by a chimpanzee (*Pan troglodytes schweinfurthii*) in the Mahale Mountains National Park, Tanzania.

On 7 November, 1996, chimpanzees of M group at Mahale killed and ate a red colobus monkey in the afternoon. When the chimpanzees were found by observers again the next morning, several individuals were still carrying "left-overs". This is not unusual, as skin is not eaten and youngsters, especially, may play with scraps of it. On the morning of 8 November we observed a female juvenile, *Ai*, playing with, and grooming a strip of skin. She was pursued in play by a juvenile male, *Primus*, who "stole" the skin. Some time later that same morning we observed *Ako*, a young adult female probably born in 1981, to be wearing what appeared to be the skin draped around her neck. When she removed and abandoned it on the trail at 10:45 hr., we found it to be tied in a single overhand knot. As can be seen from the figure, the knot creates a "necklace" of 68 cm circumference, with a "tail" of 31 cm. length. We recovered the artifact, photographed it fresh, and then dried it in silica gel.

Draping is one of 21 modes of tool use described by Beck (1); it is not uncommon in both captive and wild apes (e.g. Beck's book's cover photograph shows an orangutan with a cloth strip draped over the head). However, we know of no other non-human case in which a draped adornment is *made*, that is, a necklace created by tying a knot. However, it should be made clear that we did not see the knot tied. It may not have been done by *Ako*, and it may have occurred by accident, but the result was functional. Like all anecdotes, it can only serve to alert



Skin "necklace" (above), and (inset) close-up of knot (right)

us to a possibility; a single case is only an hypothesis, not a conclusion.

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REFERENCES

1. Beck, B.B., 1980. *Animal Tool Behavior*. Garland STPM Press, New York.
2. Crook, J.H., 1960. Nest form and construction in certain West African weaver birds. *Ibis* 102:1-25.
3. Hansell, M.H. 1984. *Animal Architecture and Building Behavior*. Longman, London.
4. Russon, A.E., and B.M.F. Galdikas, 1993. Imitation in free-ranging rehabilitant orangutans (*Pongo pygmaeus*) *J. Comp. Psychol.* 107:147-161.

